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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,076	06/13/2000	Barry E. Willner	BOC9-1999-0075/1963-7376	7107

7590 05/09/2002

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EXAMINER

INZIRILLO, GIOACCHINO

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/593,076

Applicant(s)

WILLNER ET AL.

Examiner

Gioacchino Inzirillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz et al. US 5,501,680 (herein after known as Kurtz) in view of Nagel US 5,461,692 (herein after known as Nagel). Figs. 1 and 2 respectively show a side and front-end view of the handpiece of Kurtz's invention. Reference numeral 12 is described as a laser, with power cord 14. Optical fiber groups 16, 18, 20 and 22 form concentric rings in an annular pattern around the laser 12 for transmitting light to and from a boundary sensor (16, 18 and 20) or a proximity sensor (22) for safety considerations. Although column 5 lines 18 – 20 give as an example the wavelength of light

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transmitted by these fibers as infrared, lines 13 – 18 teach that the wavelength of the light transmitted through these fibers is limited to only those that do not interfere with the radiation frequency of the laser or room light. Therefore, any visible frequency that does not provide this interference would be an obvious substitution to one of ordinary skill, as the infrared is invisible, and the visible light in the form of an annulus will provide a visual way to align the main laser 12 before its beam is turned on. Furthermore, although Kurtz fails to teach a laser or lasers surrounding the main laser 12, he does use fibers, which are well known means within the art to transmit laser radiation. Nagel teaches the transmission of laser light across a distance using fibers, see Fig. 5 of Nagel. Therefore, each fiber can be considered a laser source since they could be made to, although it is not necessary to transmit the beam of one laser. Therefore, it would be obvious to one of ordinary skill in the art to modify Kurtz as taught by Nagel to have a laser emitting light in the visible range as the guard laser. Column 5 lines 11 – 12 disclose that each fiber ring is made up of alternating light emitting and detecting fibers. Multiplexors 32 are provided to handle the emitting and receiving of light to the boundary sensors or proximity sensor. The OR gate 44 is connected to the sensor means, 34, 36, 38 and 40. Column 5 line 64 through column 6 line 19 discloses how the sensors along with the manual switching means 42 will determine if the main laser 12 is on or off. In summary of this section of the disclosure, if any one of the 3 boundary and 1 proximity sensors do not detect a sufficient level of light, the main laser will be in an on mode even if the manual switch is switched such to make it transmit. As per column 5 lines 53 – 56, it is the optocouplers 46 and 48 in conjunction with the OR gate 44 that turn the main laser 12 on and off.

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Claims 4, 6, 8, 9, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz in view of Nagel as applied to claims 1 – 3 above, and further in view of Yoo et al. US 6,285,646. Kurtz in view of Nagel teach the invention as outlined in the above rejection, but fail to teach a receiver with a central lens and an annular segmented set of mirrors. However, Figs. 5 and 6 teach a lens 35 that has a central region, and a segmented lateral portion. Therefore, it would be obvious to one of ordinary skill in the art to modify Kurtz in view of Nagel as taught by Yoo. Furthermore, Figs. 6 of Kurtz shows that the guard beam is, inasmuch as in the instant invention, aligned and cone shaped with respect to the instant invention. Still furthermore, everyone of ordinary skill in the art knows that lasers can have only two types of outputs, continuous and pulsed. Therefore, either output would be obvious to one of ordinary skill.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz in view of Nagel in view of Yoo as applied to claims ^{6, 8-11}4 above, and further in view of Bosch US 4,922,480 (herein after known as Bosch). Kurtz in view of Nagel in view of Yoo teaches the invention as outlined in the above rejection, but fail to teach a climatic condition sensor means. However, Bosch teaches a climatic sensor in Fig. 2 of his patent. Therefore, it would be obvious to one of ordinary skill in the art to modify Kurtz in view of Nagel in view of Yoo as taught by Bosch.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz in view of Nagel in view of Yoo as applied to claims ^{6, 8-11}4 and 6 above, and further in view of Gabriagues et al. US 5,345,455. Kurtz in view of Nagel in view of Yoo teaches the invention as outlined in the rejection above, but fails to teach a buffer circuit. However, Gabriagues teaches such a buffer

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circuit, see Fig. 3 reference numeral 162. Therefore, it would be obvious to one of ordinary skill in the art to modify Kurtz in view of Nagel in view of Yoo by adding a buffer as taught by Gabriagues.

Claims 12 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz in view of Nagel in view of Yoo ~~as applied to claims 1 – 11 above,~~ and further in view of Bosch and Gabriagues.

With respect to claim 12, the combination of Kurtz in view of Nagel in view of Yoo in view of Bosch and Gabriagues teaches the invention as outlined in the rejection above, as claim 12 is combination of all claim limitations of the claims 1 – 11.

With respect to claims 13 – 20, the method is inherent in the combination rejection of claim 12.

With respect to claim 13, this claim is an intended use claim and has no patentable weight, since it is held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations, *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Prior Art

The following US patents are being made of record, even though they were not relied upon in this Office Action, for being similar in subject matter, and may be relied upon in any future Office Actions: 3636473, 5247866, 6248103, 6217570,


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gioacchino Inzirillo whose telephone number is 703-305-1967. The examiner can normally be reached on M-F 8:30AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on 703-308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

May 4, 2002


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